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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/688,171

10/17/2003

Craig Bonsignore

CRD-5056

9527

27777

7590

08/01/2006

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EXAMINER

SONNETT, KATHLEEN C

ART UNIT

PAPER NUMBER

3731

DATE MAILED: 08/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/688,171

Applicant(s)

BONSIGNORE, CRAIG

Examiner

Kathleen Sonnett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments, see paragraph 5 of the response, filed 6/16/2006, with respect to the provisional 35 U.S.C. 101 rejection have been fully considered with regards to the new claims and are persuasive. New claims 10-14 do not claim the same invention as copending application 10/687,143 since they include the limitation of the one or more bridging elements comprising first and second sections configured to create an interlocking mechanism between adjacent tubular stent segments when the intraluminal medical device is in the unexpanded configuration. Additionally, the amended claims of copending application 10/687,143 include the limitation of the bridging element on one stent segment being offset radially with respect to the bridging element on an adjacent stent segment. This limitation is not found in the instant application.

Claim Rejections - 35 USC § 102

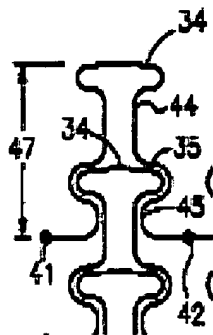
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 10 is rejected under 35 U.S.C. 102(b) as being anticipated by Alt et al. (U.S. 6,251,134). Alt et al. discloses a medical device having an unexpanded and expanded configuration comprising one or more tubular segments, each stent segment

including a plurality of longitudinal struts (45), the plurality of struts being on opposite ends of the loops (35, 42) to form a substantially S-shape configuration, and one or more bridging elements extending from one or more of the plurality of loops. The one or more bridging elements comprise(s) first (34) and second (44) sections configured to create an interlocking mechanism between adjacent tubular stent segments when the intraluminal medical device is in an unexpanded configuration. Please see the figure below taken from a portion of Fig. 2 of Alt et al.



Claim 10 is rejected under 35 U.S.C. 102(e) as being anticipated by Chew et al. (U.S. 2003/0135266). Chew et al. discloses a medical device having an unexpanded and expanded configuration comprising one or more tubular stent segments, each tubular stent segment including a plurality of longitudinal struts (54), a plurality of loops connecting adjacent longitudinal struts, the plurality of longitudinal struts being connected on opposite ends by the loops to form a substantially S-shape configuration, and one or more bridging elements (62) extending from one or more of the plurality of loops, the one or more bridging elements comprising first and second sections configured to create an interlocking mechanism between adjacent tubular stent

segments when the intraluminal medical device is in the unexpanded configuration. The first section of the bridging element is being considered the circular portion on the end of the bridging element and the second section is being considered the portion of the bridging element that connects the circular portion to the rest of the stent segment (the "neck" of the bridging element).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alt et al. or, alternatively, Chew et al., in view of Davila et al. (U.S. 6,863,685). Alt et al. and Chew et al. disclose the invention substantially as described above, further disclosing that the medical device is made of a material that renders the stent self-expandable (claim 7, and para. [0019], respectively). Alt et al. and Chew et al. both fail to disclose that the material is a superelastic alloy.

However, Davila et al. discloses that it is old and well known in the art to make a stent form a superelastic alloy such as Nitinol. Davila et al. further discloses that it is old and well known in the art to construct a self-expandable stent from an alloy comprising about fifty to about sixty percent Nickel and the remainder titanium. Davila et al. states

that the superelastic design of the stent makes it crush recoverable which makes it useful as a stent or frame for any number of vascular devices in different applications (col. 6 lines 32-45). Therefore, it would have been obvious to one of ordinary skill in the art to modify the device disclosed by Alt et al. or Chew et al. to include the improvements disclosed by Davila et al. in order to gain the advantages of a medical device that is crush recoverable.

Regarding claims 13 and 14, Alt et al. and Chew et al. fail to disclose the addition of one or more radiopaque markers.

However, Davila et al. discloses that it is old and well known in the art to use radiopaque markers in a stent medical device. Davila et al. further discloses that radiopaque markers ensure proper positioning of the device within a lumen (col. 5, lines 9-11). Also, Davila et al. states that the markers may be positioned at other locations on the stent (col. 12 lines 52-53) and markers may be utilized to determine when and if a stent is fully deployed (col. 10, lines 64-65). Therefore, it would have been obvious to one of ordinary skill in the art to modify Alt et al. or Chew et al. to include the improvements made obvious by Davila et al. in order to gain the advantage of being able to ensure proper positioning of the device within a lumen. Positioning the markers into the mating protrusion would have been obvious to one of ordinary skill in order to determine when and if each segment of the stent is fully deployed.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. 6,540,777 to Stenzel discloses a stent with interlocking bridge elements that may be locked or unlocked.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kathleen Sonnett whose telephone number is 571-272-5576. The examiner can normally be reached on 7:30-5:00, M-F, alternate Fridays off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anh Tuan Nguyen can be reached on 571-272-4963. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KCS
5/10/2006


GLENN K. DAWSON
PRIMARY EXAMINER